

CURRICULUM VITAE

1. PERSONAL PROFILE

Name: Stephen Manoni Maduka (PhD)
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Mobile phone No.: +255754 448 851; +255713 890 981
Designation: Principal Research Officer
Expertise: Agroforestry, Trees' Improvement and Propagation

2. ACADEMIC BACKGROUND AND PROFESSIONAL EXPERIENCES

Dr Maduka with over experience of two decades, earned his Bachelor of Science in Forestry in 1995, followed by a Master of Science with a specialization in Agroforestry in 2007, and a Ph.D. in tree propagation and initial field establishment in 2016, all from Sokoine University of Agriculture in Tanzania. In performing his career, he has managed to work in two research institutions, the World Agroforestry Centre (ICRAF) which was based in Shinyanga and Tabora and the Tanzania Forestry Research Institute (TAFORI). While at ICRAF, he gained experience in evaluating and disseminating Agroforestry technologies and domestication techniques for indigenous trees. At TAFORI, he has been conducting research on tree propagation and silviculture, focusing on threatened and endangered tree species and tree improvement activities, particularly for *Tectona grandis* (Teak) and Eucalyptus. Currently, he is supervising a project on assessing the status, markets, conservation, and economic contribution of *Pterocarpus tinctorius* (Mkurungu/Mninga Maji), *Osyris lanceolata* (Msandali) and *Swartzia/Bobgunnia madagascariensis* (Msekeseke); the threatened indigenous tree species of Tanzania. He is also involved in developing propagation protocols and promoting selected Bamboo species. His work contributes to sustainable land management, forest improvement, bee product availability, climate change mitigation, climate resilience, and combating deforestation. Dr Maduka has actively participated in workshops, conferences, and publications related to agroforestry and tree propagation, among other areas.

3. PUBLICATIONS

A. Patents

- (i) **Patent Number:** TZ//P/2016/06. Tanzania Business Registration and Licensing Authority
Title: A rooting media formulation for induction of regeneration of *Olea welwitschii* (Knobl.) Gilg & Schemmenb (Elgon Olive) stem cuttings.
Invetor(s) name: Maduka, M. S., Msogoya, T. J. and Chamchama, S. A. O.
- (ii) **Patent Number:** TZ//P/2016/07. Tanzania Business Registration and Licensing Authority
Title: A medium formulation for induction of *in vitro* regeneration of *Olea welwitschii* (Knobl.) Gilg & Schemmenb (Elgon Olive).
Invetor(s) name: Maduka, M. S., Chamchama, S. A. O. and Msogoya, T. J.

B. Peer-reviewed Journals Articles

- (i) Maduka, S. M., Chamshama, S. A. O. and Msogoya, T. J. (2017). Establishment potential of Elgon Olive (*Olea welwitschii* (Knobl.) Gilg & Schellenb) seedlings propagated using stem cuttings and Seeds Tanzania *Journal of Forestry and Nature Conservation*, 87 (1): 1 – 9.
- (ii) Maduka, S. M., Msogoya, T. J. and Chamshama, S. A. O. (2017). Effect of rooting media and indole-3-butyric acid concentrations on regeneration potential of Elgon olive (*Olea welwitschii* (Knobl.) Gilg & Schellenb) stem cuttings. *Tanzania Journal of Forestry and Nature Conservation* 86 (2): 1 – 12.
- (iii) Balama, C., Makatta, A. A., Maduka, S. M. and Tewele, C. (2015). Nutrient content of dried leaves of *Zanthoxylum chalybeum* Engl. growing in semi-arid areas of the Iringa region, Tanzania. *Tanzania Journal of Forestry and Nature Conservation* 84 (2): 13 – 22.
- (iv) Maduka, S. M. and Kessy, J. F. (2008). Opportunities and challenges of agroforestry practices for household income and poverty reduction in Semi-arid areas of Misungwi District, Mwanza, Tanzania. *Rural Planning Journal* 10 (1): 20-33
- (v) Iddi, S., Maduka, M. S. B., Mugasha, A. G., Shamshama, S. A. O., Nshubemuki, L. and Malimbwi, R. E. 1998. Survivals, growth, stem form and wood basic density of five *Pinus merkusii* provenances at Buhindi, Mwanza Tanzania. *Journal of Tropical Forestry Science* 10(4): 526 – 536

C. Selected Proceedings

- (i) Maduka, M. S., Laswai, F. F. and Njongomi, E. E. (2018). TAFORI experience in solving forest deforestation and degradation challenges in Tanzania. In: Kessy, J. F. Balama, C. P. Kagosi, P. J. Bakengesa, S. Pima, N. E. Mndolwa M. A. and Nkya S. E. (Eds). In the 1st TAFORI Scientific Conference on Forestry Research Focusing on Sustainable Industrial Economy in Tanzania. 48 – 59 pp.
- (ii) Maduka, M. S., Msogoya, T. J. and Chamshama, S. A. O. (2016). Effect of rooting media and indole-3-butyric acid concentrations on regeneration potential of *Olea welwitschii* (Knobl.) Gilg & Schellenb (Elgon olive) stem cuttings. Book of Abstracts of the 5th Annual National Science, Technology and Innovation Conference and Exhibitions. Theme: Research and Innovation to Support Industrialization. Kisenga International Conference Centre, LAPF. Kijitonyama, Dar es Salaam. 23rd – 25th, August 2016. COSTECH.
- (iii) Msuya, T. S., Mndolwa, M. A., Bakengesa, S., Maduka, S. and Balama, C. (2006). Factors affecting adoption and dissemination of agroforestry technologies in Tanzania: The case of HASHI/ICRAF and Ruvu fuelwood pilot Project. In Chamshama, *et al.* (EDs): Proceedings of the second national agroforestry and environmental workshop: Partnerships and linkages for greater impact in agroforestry and environmental awareness. 14th – 17th March 2006, Mbeya, Tanzania. pp. 199 – 207.
- (iv) Swai, R. E. A., Maduka S. M., Mbwambo L., Mumba, M. and. Otsyina, R. (2005). Domestication of indigenous fruit and medicinal tree species in Tanzania: A synthesis. In Rao, M. R. and Kwesiga, F. K. (EDs). Proceeding of the regional of the forest conference on Agroforestry impacts on livelihoods in southern Africa; putting Research into practice. Organised by World Agroforestry centre (ICRAF) pp. 59-65.
- (v) Ruvuga S., Maduka S. and Bakengesa S. (1999). Status and progress of agroforestry dissemination in Tanzania. Proceedings of the 13th Southern Africa Regional Planning and review meeting, 5-11 July 1999 Mangochi, Malawi. SADC-ICRAF Zambezi Basin Project.

D. Selected Technical Reports

- (i) Maduka, S.M., Mushumbusi, R.P., Pima, N.E. and Kaniki, A. (2021). Conservation Strategy for *Warburgia ugandensis* submitted to the Tanzania Forest Fund, Dodoma. 24pp.
- (ii) Mushumbusi, R.P., Maduka, S.M., Pima, N.E. and Kaniki, A. (2021). Assessment of Population Structure, Regeneration Potential and Phenological Pattern of *Warburgia ugandensis* in Lushoto District submitted to the Tanzania Forest Fund, Dodoma. 16pp.
- (iii) Balama, C., Makatta, A.A. Maduka, S.M. and Tewele, C. 2013. Promotion of under-utilized edible tree-vegetable [*Zanthoxylum chalybeum* Engl.] as livelihood adaptation strategy to climate change effects by communities in semi-arid areas, Irina, Tanzania. Progress Report Submitted to the Tanzania Forest Fund, Dar Es Salaam. 36pp.

E. Selected newsletters

- (i) Maduka, S. M., Bakengesa, S. S., Msigala, A. J. and Kavishe, M. D. (2020). Understanding Alternative Propagation Protocol for *Milicia Excelsa* (Mvule) Using Juvenile Stem Cuttings. *TAFORI Newsletter* 10 (2): 31 – 34.
- (ii) Maguzu, J., Maduka, S. M. na Boma, S. (2019). Uboreshaji wa Miche ya Matunda kwa Njia ya Kubebesha Vikonyo. *Jarida la TAFORI* 9 (3): 12 – 13.
- (iii) Maduka, S. M., Mbwambo, L. and Swai, R. E. (2013). Review on the status of research and development of edible indigenous fruits in Tanzania. *TAFORI Newsletter* 7 (2): 32 – 38.
- (iv) Maduka, S. M. and Kessy, J. F. (2008). Agroforestry tree products for household income and poverty reduction in Semi-arid areas of Misungwi District, Mwanza Tanzania. *TAFORI Newsletter* 6(1): 22-31.
- (v) Maduka, S. M. (2006). Status of Indigenous Fruits in Tanzania. In Chikamai, B., Eyog-Matig, O. and Mbogga, M. (Eds). Review and Appraisal on the Status of Indigenous Fruits in Eastern Africa. A report prepared for IPGRI-SAFORGEN in the framework of AFREA/FORNESSA FORNESSA-AFREA. Pp 81 – 99.
- (vi) Luhende, R., Maduka S. M., Banzi F., Bakengesa S. and Otsyina R. (2005). Observations on domestication process of herbal tree species from the Miombo Woodlands under mixed stand at Lubaga, Shinyanga, Tanzania. *TAFORI/CIFOR Newsletter* 26 – 30.

F. Other Publications

- (i) Maduka, S. M. (2016). Propagation and Initial Field Establishment of Elgon Olive (*Olea welwitschii* (Knobl.) Gilg & Schellenb). A Thesis for the award of Doctor of Philosophy of Sokoine University of Agriculture, Morogoro Tanzania. 110pp.
- (ii) Maduka, S. M. (2007). Role of agroforestry products in household income and poverty reduction in semi-arid areas of Misungwi District, Mwanza Tanzania. A Dissertation for the fulfilment of the award of the degree of Master of Science in Forestry of Sokoine University of Agriculture, Morogoro Tanzania. 93pp.
- (iii) Maduka, S. M. B. (1995). Survivals, Growth, Stem Form and Wood Basic Density of Five *Pinus Merkusii* Provenances at Buhindi, Mwanza Tanzania. A Special Project for the fulfilment of the award of the degree of Bachelor of Science in Forestry of Sokoine University of Agriculture, Morogoro Tanzania 20pp.